

ABSTRACT

An erosion-resistant article for use as a component in plasma process chamber. The erosion-resistant article comprises a support and an oxide coating comprising yttrium, which is disposed over the support. The support and the oxide coating preferably have material compositions that differ from one another in coefficient of thermal expansion by no more than $5 \times 10^{-6}/\text{K}$. Preferred oxide coating compositions include yttria and yttrium aluminum garnet. Preferred supports include alumina supports and aluminum-silicon carbide supports.